AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method for identifying objects in an image comprising:

receiving an image with a first resolution;

processing the image at a second resolution to identify an object;

processing the image at the first resolution using the identified object to identify another object, wherein the first resolution is higher than the second resolution.

2. (Original) The method of claim 1, further comprising:

processing the image at a third resolution to identify yet another object, wherein the yet another object is employed in the identification of the object and the another object, wherein the second resolution is higher than the third resolution.

3. (Original) The method of claim 2, further comprising:

downsampling the image from the first resolution to the second resolution; and

downsampling the image from the second resolution to the third resolution.

4. (Original) The method of claim 1, wherein the processing is performed as a function of a type of terrain in the image.

5. (Original) The method of claim 4, wherein the type of terrain is identified using a priori information and a gray level co-occurrence identification.

6. (Original) The method of claim 1, further comprising:

determining whether the object and the another object are desired objects based upon a context associated with the image.

7. (Original) The method of claim 1, wherein the object is a river.

8. (Original) The method of claim 2, wherein step of processing the image at the third resolution comprises:

identifying portions of the image containing clouds; and

identifying portions of the image containing bodies of water, wherein if portions of the image are identified which contain clouds or bodies of water, identifying the clouds or bodies of water as the yet another object.

9. (Original) The method of claim 8, wherein the identified portions of the image containing clouds or bodies of water are employed in the identification of objects in the image at the second resolution and another objects in the image at the first resolution.

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Withdrawn) A method for automatically identifying bodies of water in an image comprising:

receiving a first image at a first resolution;

processing said image at a second resolution to produce a second image identifying bodies of water in the image at said second resolution;

processing said image at a third resolution to produce a third image identifying bodies of water in the image at said third resolution;

automatically identifying bodies of water in the first image using said second and third image.

18. (Withdrawn) The method of claim 17, wherein said processing steps each comprise:

delineating the identified bodies of water in the produced image.

19. (Withdrawn) The method of claim 17, wherein the step of processing said image at said third resolution comprises:

identifying edges in the image at said third resolution, wherein edges are areas of the image which border regions of different intensities;

producing an image identifying parallel edges in the image at said third resolution;

producing a dark image and a bright image from said image identifying parallel edges;

processing the dark and bright images;

combining the processed dark and bright images to produce said third image.

20. (Withdrawn) The method of claim 17, wherein the step of processing said image at said second resolution comprises:

removing errors in said image at said second resolution caused by a detector which captured the first image;

determining a variance of intensity of each pixel in the image at said second resolution from a mean intensity of pixels surrounding each pixel;

removing pixels which have a variance less than a threshold variance;

labeling contiguous pixels as a unique region;

removing unique regions containing less than a predetermined number of pixels;

calculating a set of features for each remaining unique region; and

determining whether each remaining unique region contains bodies of water using said set of features.

21. (Withdrawn) The method of claim 20, wherein said set of features comprises:

density change, edge change, edge change percent; edge strength and intensity mean.

22. (Canceled)
23. (Canceled)
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40. (Canceled)

41. (Withdrawn) A method of identifying linear objects in an image comprising:

receiving an image with a first resolution;

generating a filtered image from the image, the filtered image identifying potential objects which have a smaller radius than the size of a filter and a different brightness than pixels surrounding the potential objects;

receiving a second image identifying regions in the image with the first resolution which are not to be processed;

generating a third image by removing regions in the filtered image which are identified in the another image as regions in the image which are not to be processed;

identifying lines in the third image;

generating a fourth image by removing lines identified in the third image which do not meet predetermined criteria; and

identifying linear objects in the image using the remaining lines in the fourth image.

42. (Withdrawn) The method of claim 41, wherein the step of generating a filtered image comprises:

performing a series of dilations and erosions of the image to produce a spatially filtered image; and

subtracting said spatially filtered image from the image to produce the filtered image.

43. (Withdrawn) The method of claim 41, wherein the identified portions in the second image are portions of the image with a first resolution which contain either clouds or bodies of water.

44. (Withdrawn) The method of claim 41, wherein the step of identifying lines in the third image comprises:

performing a Hough transform on the third image, thereby identifying a number of pixels which line on a line with a particular angle and location.

45. (Withdrawn) The method of claim 41, wherein the step of generating a fourth image comprises:

eliminating identified lines containing less than a predetermined number of pixels.

46. (Withdrawn) The method of claim 45, wherein the step of generating a fourth image further comprises:

determining a mean and standard deviation of intensities for portions of the image on either side of the remaining lines; and

eliminating a line from the remaining lines if the mean and standard deviation of intensities of the portion of the image on one side of the line is more than a predetermined amount different from the mean and standard deviation of intensities on the other side of the line.

47. (Withdrawn) A method of identifying linear objects in an image comprising:

receiving an image with a first resolution;

processing the image to produce an image at a second resolution;

generating a filtered image from the image at the second resolution;

receiving a second image identifying portions of the image with the first resolution which are not to be processed;

generating a third image by removing portions of the filtered image which are identified in the second image as portions of the image which are not to be processed;

identifying lines in the third image;

generating a fourth image by removing lines identified in the third image which do not meet predetermined criteria; and

identifying linear objects in the image using the remaining lines in the fourth image.

48. (Withdrawn) A method for identifying linear objects in an image comprising:

receiving a first and second image identifying linear objects, the first image having a first resolution and the second image having a second resolution;

processing the first and second image to produce a third image, wherein the processing combines linear objects from the first and second image;

identifying linear objects in the image using the third image.

49. (Withdrawn) The method of claim 48, further comprising:

receiving another image, the another image having a third resolution, wherein the processing step processes the another image when producing the third image.